

***What is Claimed is:***

1. A method of implementing a double-entry bookkeeping performed on an internet-based accounting system comprising:
  - 5 providing at least one user end having a general-purpose computer with a browser, and at least one server end having a server;  
providing a communication linkage with an internet connection between the general-purpose computer and the server;  
providing a program for performing bookkeeping and accounting on the
  - 10 server; and  
maintaining a database of user identified files which are identifiable, by name and password  
executing a set of procedural steps as below:
    - (a) creating a user interface having a data capturer and processor
    - 15 which composes AR; AP; Rec; Pay; TT; and JJ working pages, respectively, for performing or capturing transactions data of credit sale; credit purchase; monetary receipt; monetary payment; monetary transfer; and general transactions, which is able to be sent to the general-purpose computer for inputting transactions data;
    - 20 (b) capturing data on each working page, and then clearing up necessary input cells accordingly before sending to the general-purpose computer for further input of additional transaction data in the same transactions set;
    - (c) following a set of procedural steps on each of the working pages,
    - 25 and automatically creating a record-sets group with at least two record-sets, one for recording processed data of debit record-set and one for recording processed data of credit record-set; depending on the features of each of the working pages, one of the record-sets is created as "subject (S)" and the others as "Object (O)"; each record-sets group has only one (S) with unlimited
    - 30 number of (O); according to the specific procedures of each page, a transaction amount is either posted into the debit or posted into the credit field of each record set exclusively, either debit record-set or credit record-set created as (S) and (O) follow the rules for debiting and crediting in each working page; any additional transaction data in the same set will

simultaneously update the transaction record-set (S) of the record-sets group and create a new record-set (O) incorporating into the record-sets group record-sets group as a whole to constitute a double entry journal while complying with the Total-Debit-Equal-Total-Credit rule throughout;

5 (d) defining the record-set as (S) and record-set as (O) by the rules of each working page wherein record-set (S) and record-set (O) are built up based on transaction data; except for page JJ which records general transactions wherein (O) is built up based on transaction data and record-set (S) is built up with special purpose;

10 (e) creating with the JJ page a dummy record-set as (S) for temporarily balancing the record-sets group because the next set transaction data of the same transactions set to be input is not anticipatable to the program wherein the function of (S) in JJ page is for protection of database files from recording single entry or disordered journal entries caused by disturbance or  
15 disconnection during the transmission of data and once all transactions data in the same transactions sets have been recorded and the total debit is equal to the total credit in a same transactions record-sets group, the (S) will be automatically deleted by the program to ensure all processed data stored into the database are double-entry journals while complying with the total-debit-equal-total-credit rule throughout.  
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(f) converting foreign currency into local currency by adopting the appropriate exchange rates wherein the application of the function “exchange difference calculation” is included in each working page and is based on the “principal of translation of foreign currency transaction” according to general  
25 accounting practice, enabling an automatic creation of a new record-set (E) for recording data resulting from an exchange difference derived between the adoption of book rate and transaction rate according to account types involving in the record-set (S) and (O) or vice versa so that the debit or credit balance in (E) corresponds to the adverse or favor difference derived and for  
30 each additional data set be processed, this procedure repeats and updates the amount of exchange difference in existing record-set (E);

(g) executing the full procedural steps and the Debit-Equal-Credit test of each working page when a new record-sets group “(S) plus (O) together with (E), if exchange difference derived” is created or an additional transaction

record-set (O) is added, the program regarding each as a separate process of the data set;

(h) converting the double entry journal into a voucher form which will take place every time following each separate process completed as stated in step (g);

(i) feeding the voucher back to the general-purpose computer on a real time basis every time completion of a process as stated in step (g) is done as to a particular user inputting transaction data;

(j) storing a double entry journal consisting record-sets group whereas each record-set consisting the identification fields of user's identity and user's business unit; account codes; input amount; currency; the converted amount in local currency in debit field or credit field; open invoice amount in case of credit sale or credit purchase transaction;

(k) storing or updating the record sets group in form of double entry journal into the designated database file in one stroke immediately after each processing wherein access is given only to an identified user;

(l) recognizing the identification fields for the user's access right and the limitations set by the program on the usage of database file be kept intact; and

(m) receiving the reporting command from each of plurality of users and then by reference to the user's identity and business unit, sorting, working out and analyzing on each of the plurality of journal records retrieved, sending out financial reports in general accounting practice and analysis to the user by way of report editor that writes report line by line word by word to the general-purpose computer browser.

2. The method of claim 1, wherein each of the six working pages has a distinguishable relationship between the transaction type and account type for debit or credit field and accordingly there is a set of standard processing procedural steps to work out the double entry journal; a double entry journal has been completed whereas the summation of all debit amounts in debit record-sets equals to the summation of all credit amounts in credit record-sets in same record-sets group:

Page AR	Relationship between debiting credit receivable (S) and crediting income (O) for credit sale;
Page AP	Relationship between crediting credit payable (S) and debiting cost (O) for credit purchase;
Page Rec	Debiting monetary flow-in (S) and crediting income (O) or customer invoice settlement (O) for receipt transaction;
Page Pay	Crediting monetary flow-out (S) and debiting cost (O) or debiting supplier invoice settlement (O) for payment transaction;
Page TT	Crediting monetary flow from one monetary item (S) and debiting monetary flow to another monetary item (O) for monetary transfer transaction;
Page Journal	Dummy record (S) in debit/credit field and corresponding amount in credit/debit field of record-set (O) of general transaction causing change in asset, liability, income, expense or capital account.

3. The method of claim 2, wherein each working page supports journal formation for multiple transactions in transactions set with availability of constant call back of that page until all intended transactions in same set are completed for a journal.

4. The method of claim 1, further including the step of complying with the principle of a double entry system wherein in case of a new transaction data set being processed there is created a new set of record-sets group, summation of the amount in  $(O_1)$  and the amount in  $E_1$ , amount of  $E_1$  is negative if credit and positive if debit, equals to the amount in  $(S_1)$ , and if so, a test passes and the record-sets group is stored so that a double entry journal is completed.

5. A method of claim 1, wherein when additional transaction data set is processed, a new record set  $(O_2)$  is created and existing record-sets group of same record-sets group posted previously is brought back from the database file and updated as follows:

- amount in existing Record set ( $O_1$ ) = A;  
amount in existing Record set ( $S_1$ ) = B;  
amount in existing Exchange record set ( $E_1$ ) = C;  
amount in new record set ( $O_2$ ) = D;
- 5 amount of newly derived exchange difference for adding into ( $E_1$ ) = E;  
amount of newly created for adding into Record set ( $S_1$ ) = F;  
if  $A + C + D + E = B + F$ , test pass;  
the record-sets group will be updated and the journal will have:  
record set ( $O_1$ ) with amount A;
- 10 record set ( $S_1$ ) with amount  $B + F$ ;  
record set ( $E_1$ ) with amount  $C + E$ ;  
record set ( $O_2$ ) with amount D;
6. The method of claim 1, further including the step of posting close  
15 balance of each balance sheet item from one year to become the opening  
balance of next year; for balances other than the accounts receivable and  
accounts payable, each balance sheet item are grouped by way of posting  
balance of each business unit separately and for accounts receivable and  
accounts payable, balances are posting separately not only referring to each  
20 of particular business units it belongs to but also referring to open invoice by  
each record.
7. The method of claim 1, wherein the six working pages are reached by  
six different commands through clicking the desired icon on page name as  
25 listed on the functions bar of a user's work platform, wherein the functions bar  
is available either in both the abbreviation form and in full wording form or  
solely in abbreviation form when opening function pages for input or output.
8. The method of claim 1, wherein the precise user file in plurality of  
30 database files is located by recognizing the user's identity and password.
9. The method of claim 1, wherein the rights of access include stating as  
follows:  
Level O –report user only;

Level 1 – supervisor of head office has the right to access and handle information of the head office and all business units under the head office; has the authority to combine all the financial information with all business units under the head office; and the supervisor has the right to define and delegate  
5 authority to and to set limitations on access rights of each user of each business unit;

Level 2 – user of each business unit has the right to handle the accounts of the business unit, subject to the limitations set by Level 1 supervisor, certain financial information and report of that unit can be  
10 accessed and read.

10. The method of claim 1, wherein the work platform and the data capturer and processor are constructed on a transaction oriented basis such that data of a transaction input by user is according to the details of that  
15 transaction through following the guiding instructions/wordings, logical sequence and hints provided by each page, and where the program can convert them into double entry journal.

11. The method of claim 1 which further includes the step of enabling the report editor to write financial information to the browser of each of a plurality  
20 without the assistant of market available reporting tools.

12. The method of claim 1 which further includes the step of allocating the accounts code prefixes according to each type of accounts which are pre-set  
25 by system, to thereby form an account skeleton.

13. The method of claim 1 which further includes the step of establishing meaningful journal code prefixes which are pre-set by system.

30 14. The method of claim 1, wherein the program prepares financial indicators and ratios including liquid ratio, quick ratio, debtor turnover rate, creditor turnover rate, debt/equity ratio for balance sheet analysis; gross profit ratio and incomes and expenditures ratio analysis for profit and loss statement

analysis by processing information from plurality of journals stored in the user's database file.

15. The method of claim 1, wherein a special working page is provided to  
5 an internal/external auditor which includes pre-set scopes of audit tests with  
pre-set series of selection criteria; responding to the command by each of  
plurality of users, the program retrieves from plurality of journals stored in the  
database file of that user; analyzing the information according to the selected  
test type and selected criteria; and reporting to the general-purpose computer  
10 through the report editor annexed to the program.